

CHAPTER V.1 SYMPTOMS

Symptoms are “subjective evidence of a disease or a patient’s condition” (Dorland’s Medical Dictionary, 1982), and are often the first indication of an adverse response to environmental pollutants. They may be relatively mild, such as a slight headache or runny nose, or be much more severe in nature. Symptoms are of interest because in some cases they are the only information sources available that describe the adverse response effect to pollutant exposure. This situation is commonly encountered in the study of indoor air pollutants, which may elicit a number of symptoms in the absence of a definitive disease diagnosis. Symptoms that have been linked to indoor air pollutants are grouped and discussed in Chapter V.2.

Evaluation of symptoms can be complex because they are not diseases per se. Symptoms are typically evaluated with other clinical information by a medical professional to determine an underlying cause. This evaluation usually results in the diagnosis of a specific illness.¹ For example, a sore throat may be associated with a streptococcal infection, a cold, or a variety of other causes. A runny nose may be due to a cold, allergies, or some other cause. When symptoms arise due to a low level physiological response to a pollutant, however, the patient and the physician may not determine cause and effect, or may not have the means to eliminate the source. Consequently, some symptoms occur over long periods of time.

Symptoms usually incur relatively low medical costs and are often treated with over-the-counter (OTC) medications, but exceptions exist. An aggressive medical investigation of a patient’s symptoms and underlying causes may involve computed tomography (CT) scans, magnetic resonance imagery (MRIs), and other expensive medical tests. It is difficult to determine the probability of intensive diagnostic analysis, which introduces uncertainty into the cost analysis of symptoms. An additional source of uncertainty is the differing responses of patients to their symptoms. Some may seek medical attention quickly; others may tolerate headaches, tiredness, sore throat, and symptoms for a long time without seeking medical attention, or may use only OTC medications.

As our understanding of symptoms and illnesses associated with environmental pollutants improves, fewer symptoms may be considered in isolation — they will be linked to diseases or syndromes that can then be treated effectively. At this point in time (2000), however, it is useful to have estimates of some potential costs which may be incurred by people experiencing symptoms in the absence of obvious disease. This section of the *COI Handbook* provides that type of information.

¹Illness and disease are used in this handbook to designate any adverse health condition.